

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2005/056538A. CLASSIFICATION OF SUBJECT MATTER  
B25D17/24

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
B25D B25F H02K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/216907 A1 (HAPP KENNETH C ET AL) 4 November 2004 (2004-11-04) paragraph '0024! - paragraph '0032! paragraph '0036! - paragraph '0038! figures -----	1-7, 10, 11, 14
X	WO 94/19152 A (RIBBING, NILS, B., G) 1 September 1994 (1994-09-01) page 3, line 14 - line 18 page 4, line 2 - line 8 page 4, line 19 - last line figures 1,5,6 ----- -/-	1-5, 7, 9, 11, 14

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

2 March 2006

Date of mailing of the international search report

10/03/2006

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## INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2005/056538

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 40 00 861 A1 (LICENTIA PATENT-VERWALTUNGS-GMBH, 6000 FRANKFURT, DE; ATLAS COPCO ELEK) 18 July 1991 (1991-07-18) column 1, line 51 - column 3, line 5 figures	1-4, 7, 9, 11, 14
X	GB 2 050 511 A (BOSCH GMBH ROBERT) 7 January 1981 (1981-01-07) page 1, line 65 - page 2, line 31 figures	1-3, 10, 11, 13, 14
X	EP 0 849 492 A (INGERSOLL-RAND COMPANY) 24 June 1998 (1998-06-24) column 1, line 20 - line 45 column 2, line 13 - line 36 column 3, line 20 - line 34 figures 1, 5	1-4, 6, 7, 9, 10
X	US 5 027 910 A (HONSA ET AL) 2 July 1991 (1991-07-02) column 2, line 8 - column 4, line 17 figures	1-3, 10-12
X A	WO 02/051596 A (CHICAGO PNEUMATIC TOOL COMPANY) 4 July 2002 (2002-07-04) page 4, line 1 - page 7, line 3 figures	1-3, 7 4, 11
X	US 2003/199239 A1 (HUNG VICTOR) 23 October 2003 (2003-10-23) paragraph '0019! figure 7	1-3, 7
X	US 6 286 610 B1 (BERGER RUDOLF ET AL) 11 September 2001 (2001-09-11) column 3, line 20 - line 55 figures	1-3
X	US 2002/096341 A1 (HAGAN TODD A ET AL) 25 July 2002 (2002-07-25) paragraph '0048! - paragraph '0056! figures 1, 2, 4-6, 10, 11	1-3
A	US 5 947 211 A (JAKOBSSON ET AL) 7 September 1999 (1999-09-07) column 3, line 50 - line 55	7-9
A	US 4 595 382 A (OHKUBO ET AL) 17 June 1986 (1986-06-17) column 2, line 50 - line 52 figure 2	7-9

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## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 21  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 21

The wording of claim 21 does not comply with Rule 6.2(a) PCT (refer also to paragraph 5.10 of the PCT International search and Preliminary Examination Guidelines of 11 March 2004 published by WIPO).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2005/056538

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2004216907	A1	04-11-2004	AU 2003270603 A1 WO 2004026534 A1	08-04-2004 01-04-2004
WO 9419152	A	01-09-1994	EP 0675781 A1 SE 504437 C2 SE 9300594 A	11-10-1995 10-02-1997 24-08-1994
DE 4000861	A1	18-07-1991	NONE	
GB 2050511	A	07-01-1981	DE 2912718 A1 JP 55131487 A SE 8002326 A	09-10-1980 13-10-1980 01-10-1980
EP 0849492	A	24-06-1998	DE 69722154 D1 JP 10193285 A US 5769174 A	26-06-2003 28-07-1998 23-06-1998
US 5027910	A	02-07-1991	NONE	
WO 02051596	A	04-07-2002	NONE	
US 2003199239	A1	23-10-2003	NONE	
US 6286610	B1	11-09-2001	DE 19730356 A1 WO 9903647 A1 EP 0999922 A1 ES 2163290 T3 JP 2001510099 T	28-01-1999 28-01-1999 17-05-2000 16-01-2002 31-07-2001
US 2002096341	A1	25-07-2002	CN 1575218 A EP 1365890 A1 MX PA03006554 A US 2005061524 A1 US 2005028997 A1 US 2005022358 A1	02-02-2005 03-12-2003 29-01-2004 24-03-2005 10-02-2005 03-02-2005
US 5947211	A	07-09-1999	CA 2226756 A1 DE 69616058 D1 DE 69616058 T2 EP 0837756 A1 JP 11508827 T SE 503979 C2 SE 9502592 A WO 9702929 A1	30-01-1997 22-11-2001 20-06-2002 29-04-1998 03-08-1999 14-10-1996 14-10-1996 30-01-1997
US 4595382	A	17-06-1986	DE 3446379 A1 GB 2152188 A JP 1043864 B JP 1559084 C JP 60139966 A	04-07-1985 31-07-1985 22-09-1989 16-05-1990 24-07-1985